Claims Pending Upon Entry of the Amendment Filed on January 21, 2003

1. (Amended) An image processing apparatus comprising:

a detector, arranged to detect an image area excluding a frame image contained in an inputted image;

a generator, arranged to generate correction information of the detected image area; and

a corrector, arranged to correct the image area based on the generated correction information,

wherein said detector detects the frame image, which has gradation, by detecting pixels that have a same hue and a difference between lightness and saturation having a predetermined value or less.

2. (Amended) The apparatus according to claim 1, wherein, when pixels adjacent to a pixel of interest satisfy a predetermined condition, said detector determines that the pixel of interest constructs the frame image.

3. (Amended) The apparatus according to claim 2, wherein said detector identifies the image area other than the frame image based on a detection result of the pixel constructing the frame image and supplies information representing the identified image area to said generator and said corrector .

4. (Amended) The apparatus according to claim 3, wherein said detector scans the image in a horizontal direction in units of columns and detects, as two ends of the image area in the horizontal direction, a first column having a pixel determined not to construct the frame image and a next column having a pixel determined to construct the frame image.

5. (Amended) The apparatus according to claim 3, wherein said detector scans the image in a vertical direction in units of rows and detects, as two ends of the image area in the vertical direction, a first row having a pixel determined not to construct the frame image and a next row having a pixel determined to construct the frame image.

6. (Amended) The apparatus according to claim 3, wherein, after correction by said corrector has ended, said detector executes identification processing of an image area other than the frame image again.

7. (Amended) The apparatus according to claim 1, wherein said generator generates, as the correction information, highlight and shadow points and white and black balances of the image area.

8. (Amended) The apparatus according to claim 7, wherein said corrector corrects gradation of the image area based on the highlight and shadow points and the white and black balances, which are generated by said generator.

9. (Amended) An image processing method comprising the steps of:

detecting an image area excluding a frame image contained in an inputted image;

generating correction information of the detected image area; and

correcting the image area based on the generated correction information,

wherein, in said detecting step, the frame image, which has gradation, is detected by detecting pixels that have a same hue and a difference between lightness and saturation having a predetermined value or less.

10. (Amended) The method according to claim 9, wherein said detecting step comprises, when pixels adjacent to a pixel of interest satisfy a predetermined condition, determining that the pixel of interest constructs the frame image.

11. (Amended) The method according to claim 10, further comprising the steps of:

identifying the image area other than the frame image based on a detection result of the pixel constructing the frame image; and

supplying information representing the identified image area for generation processing of the correction information and correction processing of the image area.

12. (Amended) The method according to claim 11, wherein said detecting step comprises scanning the image in a horizontal direction in units of columns and detecting, as two ends of the image area in the horizontal direction, a first column having a pixel determined

not to construct the frame image and a next column having a pixel determined to construct the frame image.

13. (Amended) The method according to claim 11, wherein said detecting step comprises scanning the image in a vertical direction in units of rows and detecting, as two ends of the image area in the vertical direction, a first row having a pixel determined not to construct the frame image and a next row having a pixel determined to construct the frame image.

14. (Amended) The method according to claim 11, wherein, after correction processing has ended, identification processing of an image area other than the frame image is executed again.

15. (Amended) The method according to claim 9, wherein said generating step comprises generating, as the correction information, highlight and shadow points and white and black balances of the image area.

16. (Amended) The method according to claim 15, wherein said correcting step comprises correcting gradation of the image area based on the highlight and shadow points and the white and black balances, which are generated in said generating step.

17. (Amended) A computer program product comprising a computer-readable medium storing computer program code for executing an image processing method, said product comprising process procedure codes for:

a detection step of detecting an image area excluding a frame image contained in an inputted image;

a generation step of generating correction information of the detected image area; and

a correction step of correcting the image area based on the generated correction information,

wherein, in the detection step, the frame image, which has gradation, is detected by detecting pixels that have a same hue and a difference between lightness and saturation having a predetermined value or less.

18. (Amended) An image processing apparatus comprising:

a detector, arranged to detect a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image;

a generator, arranged to generate correction information corresponding to each photographic image portion detected by said detector; and

a corrector, arranged to correct each photographic image portion based on the generated correction information.

19. (Amended) An image processing method comprising the steps of:

detecting a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of photographic image portions, wherein each photographic image portion is separated by the frame image;

generating correction information corresponding to each photographic image portion detected in said detecting step; and

correcting each photographic image portion based on the generated correction information.

20. (Amended) A computer program product comprising a computer-readable medium storing a computer program code for executing an image processing method, said product comprising process procedure codes for:

a detection step of detecting a plurality of photographic image portions excluding a frame image contained in an image that includes the plurality of image portions, wherein each photographic image portion is separated by the frame image;

a generation step of generating correction information corresponding to each photographic image portion detected by the detection step; and

a correction step of correcting each photographic image portion based on the generated correction information.